

IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace the first paragraph on page 3, commencing on line 1, with the following amended paragraph:

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FIG. 1 illustrates an exemplary communication system 100 capable of implementing embodiments of the invention. A transmitting station (TS) 102 transmits signals to a receiving station (RS) 104 over a forward link 106a. Because the signals transmitted from the TS 102 contain user data, the forward link must comprise at least a traffic channel. The TS 102 receives signals from the RS 104 over a reverse link 106b. Because the signals transmitted from the ~~RS-102~~ ~~RS 104~~ do not need to contain user data, the reverse link need not comprise a traffic channel. If a two-way user data communication is desired, both the forward link 106a and the reverse link 106b must comprise traffic channels. For simplicity, the communication system 100 is shown to include only two stations. Such a system can represent, e.g., two computers communicating with each other. However, other variations and configurations of the communication system 100 are possible. In a multi-user, multiple-access communication system, single TS may be used to concurrently or sequentially transmit data to and receive data from a number of RSs.

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Please replace the third paragraph on page 4, commencing on line 15, with the following amended paragraph:

The communication system 100 may employ variable data rate transmission on the forward link 106a. Such a system, disclosed in co-pending application serial number 08/963,386, defines a set of data rates, ranging from 38.4 kbps to 2.4 Mbps, at which an access point (e.g., TS 102) may send data packets to an access terminal (e.g., ~~RS-104~~ ~~RS 104~~). In one embodiment, the data rate is determined by a data rate selection method at the ~~RS-102~~ ~~RS 104~~, and a scheduler method at the ~~TS-104~~ ~~TS 102~~. Although the data rate determination is described in terms of the data rate selection method and the scheduler method, one of ordinary skill in the art will understand that this is for illustration only, and any data rate determination method can be used.

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Please replace the last paragraph on page 4, which commences on line 31 and which bridges pages 4 and 5, with the following amended paragraph:

In one embodiment, each TS in the communication system 100 transmits known signal, called a pilot signal, at well-defined, periodic intervals. The RS 104 monitors the pilot signals received from the TSs in [[he]] the RS 104 active set, and utilizes the pilot signals to determine a quality metric associated with each TS. In one embodiment, the quality metric is a signal-to-noise ratio (SINR). For the purposes of this description, an active set is a list of pilot signals selected by the particular RS from all pilot signals received with sufficient strength to indicate that the associated forward traffic channel can be successfully demodulated. Based on the SINR information over past signal segments from each of the TSs in the RS 104 active set, the RS 104 predicts the SINR over future signal segment(s) for each of the TSs in the RS 104 active set. In one embodiment, the signal segment is a slot. An exemplary prediction method is disclosed in co-pending application serial number 09/394,980 entitled "SYSTEM AND METHOD FOR ACCURATELY PREDICTING SIGNAL TO INTERFERENCE AND NOISE RATIO TO IMPROVE COMMUNICATIONS SYSTEM PERFORMANCE," assigned to the assignee of the present invention and incorporated herein by reference. The RS 104 then selects the TS (e.g., TS 102), which offers the best throughput over the future slot(s), and estimates the highest data rate at which the RS 104 can receive the next packet from the TS 102. The RS 104 then sends a data rate request (DRC) to the TS 102, indicating the data rate at which the RS 104 wishes to receive the next packet.

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Please replace the last paragraph on page 5, which commences on line 28 and which bridges pages 5 and 6, with the following amended paragraph:

The data rate, requested by the RS 102 RS 104 via a DRC from the TS 104, is determined using the rate control method, which predicts a SINR over future slot(s) based on the SINR over past slot(s) from the TS 104 TS 102. The SINR from the TS 104 TS 102 is subject to rapid, unpredictable changes due to the variations in the channel. Such variations include signal-to-noise ratio changes, fading, time variance, and other changes known to one skilled in the art. Because these variations are different for different communication channels, transmission of a signal over a wireless communication channel requires different considerations than transmission of a signal over a wire-like communication channel, e.g.,

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coaxial cable, optical cable, and other types known to one skilled in the art. One of the factors affecting the communication channel characteristics in wireless communication systems is inter-cell interference. Such interference levels may be significantly higher during the data transmission than the interference level seen during the pilot transmission, because some of the base stations may remain idle during the data period. Consequently, it is not always possible for the RS 104 to predict the SINR with great accuracy. Therefore, the rate control method establishes a lower bound on the actual SINR during the next packet duration with high probability, and determines the maximum data rate that can be sustained if the actual SINR is equal to this lower bound. In other words, the rate control method provides a conservative measure of the rate data at which the next packet can be received.

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Please replace the second paragraph on page 10, which commences on line 16, with the following amended paragraph:

FIG. 3 illustrates a conceptual forward link structure in accordance with one embodiment of the invention. A multi-slot packet is transmitted from TS 102 (FIG. 1) to RS 104 (FIG. 1) in successive slots. The transmission of the first slot of the starts in the n -th slot. The RS 104 decodes the packet, and verifies the CRC of the decoded result after having received the $(n+1)$ th slot of transmission. The ~~RS 104 RS 102~~ informs the TS 102 about the outcome by sending a FAST_ACK signal in the slot $(n+4)$. The TS 104 demodulates and interprets the FAST_ACK signal and terminates transmission of the current packet in the slot $(n+4)$. Thus, although the transmission of the current packet has been terminated early, if the scheduling method retransmitted the current packet in the interval between the $(n+1)$ th slot and the $(n+5)$ th slot, some transmission waste occurred. One skilled in the art will understand that the correspondence between the actions and slots is for illustrative purposes only. Thus, implemented system may take different interval than two slots between decoding a slot and sending a FAST_ACK signal.